

# WEST Search History

DATE: Tuesday, August 19, 2003

<u>Set</u> <u>Name</u> side by side	<u>Query</u>	<u>Hit</u> <u>Count</u>	<u>Set Name</u> result set
<i>DB=USPT,PGPB; PLUR=YES; OP=ADJ</i>			
L12	L11 and l8	3	L12
L11	L10 and (dna or cdna or nucleic acid or polynucleotide)	6	L11
L10	L9 and (corynebacteria or corynebacteria glutamicum)	6	L10
L9	homocysteine methyltransferase or Methylenetetrahydropteroyltriglutamate homocysteine methyltransferase or Methyltetrahydropteroyltriglutamate homocysteine transmethylase or Tetrahydropteroyltriglutamate methyltransferase or Cobalamin independent methionine synthase or Methyltetrahydropteroylpolyglutamate homocysteine methyltransferase or Tetrahydropteroyltriglutamate methyltransferase	46	L9
L8	L7 or l6 or l5 or l4 or l3 or l2 or l1	26483	L8
L7	((((536/23.2)!CCLS.))	8360	L7
L6	((((435/320.1)!CCLS.))	19151	L6
L5	((((435/252.32)!CCLS.))	126	L5
L4	((((435/252.3)!CCLS.))	7222	L4
L3	((((435/193)!CCLS.))	1247	L3
L2	((((435/183)!CCLS.))	3610	L2
L1	((((435/69.1)!CCLS.))	14033	L1

END OF SEARCH HISTORY

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Search Results - Record(s) 1 through 6 of 6 returned.

☐ 1. Document ID: US 20030049804 A1

L11: Entry 1 of 6

File: PGPB

Mar 13, 2003

PGPUB-DOCUMENT-NUMBER: 20030049804

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20030049804 A1

TITLE: Corynebacterium glutamicum genes encoding metabolic pathway proteins

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw Desc
Image												

☐ 2. Document ID: US 20020197605 A1

L11: Entry 2 of 6

File: PGPB

Dec 26, 2002

PGPUB-DOCUMENT-NUMBER: 20020197605

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20020197605 A1

TITLE: Novel Polynucleotides

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw Desc
Image												

☐ 3. Document ID: US 20020110877 A1

L11: Entry 3 of 6

File: PGPB

Aug 15, 2002

PGPUB-DOCUMENT-NUMBER: 20020110877

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20020110877 A1

TITLE: Nucleotide sequences which code for the metE gene

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw Desc
Image												

☐ 4. Document ID: US 20020048793 A1

L11: Entry 4 of 6

File: PGPB

Apr 25, 2002

PGPUB-DOCUMENT-NUMBER: 20020048793

PGPUB-FILING-TYPE: new  
DOCUMENT-IDENTIFIER: US 20020048793 A1

TITLE: Nucleotide sequence which code for the meth gene

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw Desc
Image												

☐ 5. Document ID: US 6156545 A

L11: Entry 5 of 6

File: USPT

Dec 5, 2000

US-PAT-NO: 6156545  
DOCUMENT-IDENTIFIER: US 6156545 A  
\*\* See image for Certificate of Correction \*\*

TITLE: Biosynthesis method enabling the preparation of cobalamins

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw Desc
Image												

☐ 6. Document ID: US 5691163 A

L11: Entry 6 of 6

File: USPT

Nov 25, 1997

US-PAT-NO: 5691163  
DOCUMENT-IDENTIFIER: US 5691163 A  
\*\* See image for Certificate of Correction \*\*

TITLE: Cells with altered betaine catabolism and their use in producing metabolites or enzymes

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw Desc
Image												

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Terms	Documents
L10 and (dna or cdna or nucleic acid or polynucleotide)	6

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=> d full his

(FILE 'HOME' ENTERED AT 13:23:02 ON 19 AUG 2003)

FILE 'REGISTRY' ENTERED AT 13:23:37 ON 19 AUG 2003

L1 1 SEA ABB=ON PLU=ON 9068-29-5/RN

FILE 'HCAPLUS' ENTERED AT 13:25:01 ON 19 AUG 2003

FILE 'REGISTRY' ENTERED AT 13:25:05 ON 19 AUG 2003

SET SMARTSELECT ON

L2 SEL PLU=ON L1 1- CHEM : 10 TERMS

SET SMARTSELECT OFF

FILE 'HCAPLUS' ENTERED AT 13:25:06 ON 19 AUG 2003

L3 44 SEA ABB=ON PLU=ON L2

L4 0 SEA ABB=ON PLU=ON L3 (L) (CORYNEBACTERIA OR CORYNEBACTERIA  
GLUTAMICUM OR (BACTERIA (L) CORYNEFORM))

L5 7 SEA ABB=ON PLU=ON L3 (L) (DNA OR CDNA OR NUCLEIC ACID OR  
POLYNUCLEOTIDE)

=> d ibib ab 1-7

L5 ANSWER 1 OF 7 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2002:429085 HCAPLUS  
DOCUMENT NUMBER: 137:1573  
TITLE: Lactobacillus rhamnosus polynucleotides, polypeptides  
and methods for their use  
INVENTOR(S): Glenn, Matthew; Havukkala, Ilkka J.; Lubbers, Mark  
William; Dekker, James  
PATENT ASSIGNEE(S): Genesis Research and Development Corporation Limited,  
N. Z.; Vialactia Bioscience (NZ) Limited  
SOURCE: PCT Int. Appl., 128 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 7  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002044383	A1	20020606	WO 2001-NZ286	20011128
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, VZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 6476209	B1	20021105	US 2000-724623	20001128
AU 2002016499	A5	20020611	AU 2002-16499	20011128
US 2002151063	A1	20021017	US 2001-28415	20011220
PRIORITY APPLN. INFO.: US 2000-724623 A 20001128 US 1996-713557 A2 19960830 US 1998-36004 B2 19980304 US 2000-724809 A2 20001128 WO 2001-NZ286 W 20011128				
AB Fifty-nine novel polynucleotides isolated from Lactobacillus rhamnosus are disclosed, as well as probes and primers, genetic constructs comprising the polynucleotides, biol. materials, including plants, microorganisms and multicellular organisms incorporating the polynucleotides, polypeptides expressed by the polynucleotides, and methods for using the polynucleotides and polypeptides. The polynucleotides were isolated by high-throughput sequencing of DNA libraries from the lactic acid bacteria L. rhamnosus strain HN001, and identified by comparison and alignment with known sequences in the public databases. The polynucleotides and polypeptides have use as enzyme activities, anti-infective activities, fermentative prodn. of useful products, immune system modulating activity, dairy product manuf., adhesion activity, and regulatory activity.				
REFERENCE COUNT: 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT				

L5 ANSWER 2 OF 7 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2002:131799 HCAPLUS  
DOCUMENT NUMBER: 137:60252  
TITLE: Cloning and characterization of a cDNA  
encoding a **cobalamin-independent  
methionine synthase** from potato  
(Solanum tuberosum L.)  
AUTHOR(S): Zeh, Michaela; Leggewie, Georg; Hoefgen, Rainer;  
Hesse, Holger  
CORPORATE SOURCE: Max-Planck-Institut fur Molekulare  
Pflanzenphysiologie, Golm, 14476, Germany  
SOURCE: Plant Molecular Biology (2002), 48(3), 255-265  
CODEN: PMBIDB; ISSN: 0167-4412  
PUBLISHER: Kluwer Academic Publishers  
DOCUMENT TYPE: Journal

LANGUAGE: English

AB A potato cDNA clone, StMS1, that encodes a methionine synthase was isolated. This protein was identified on the basis of both structural and functional evidence. The predicted sequence of the protein encoded by StMS1 shows a high degree of similarity to methionine synthases from other organisms and the expression of StMS1 in bacterial mutant strains restored the mutant's ability to synthesize methionine. Genomic organization and expression analyses suggest that StMS1 is a low-copy gene and is differentially expressed in potato organs. StMS1 expression was found in all tissues, but at elevated levels in flowers, basal levels in sink and source leaves, roots and stolons, and low levels in stems and tubers. RNA expression data were confirmed by western blot anal. except that the protein content in leaves was less than expected from the RNA data. Western blot anal. of subcellular fractions revealed that the protein is located in the cytosol. However, the changing pattern of gene expression during the day/night period implied a light-dependent control of MS transcription normally seen for enzymes localized in plastids. The expression of MS was shown to be light-inducible with its highest expression at midday. These RNA data were not confirmed at the protein level since protein content levels remained const. over the whole day. Feeding expts. of detached leaves revealed that sucrose or sucrose-derived products are responsible for StMS1 induction. This induction can be blocked by treatment with DCMU during the light period. Western anal. revealed that the amt. of StMS1 is not affected by either treatment. This expt. confirmed the presence of a day/night rhythm. Methionine synthase expression is regulated by photoassimilates but this seems not to detectably alter protein levels.

REFERENCE COUNT: 57 THERE ARE 57 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 3 OF 7 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2001:619639 HCAPLUS

DOCUMENT NUMBER: 135:300156

TITLE: Chemical Communication across the Zinc Tetrathiolate Cluster in Escherichia coli Ada, a Metalloactivated DNA Repair Protein

AUTHOR(S): Sun, Li Jing; Yim, Ching K.; Verdine, Gregory L.

CORPORATE SOURCE: Department of Chemistry and Chemical Biology, Harvard University, Cambridge, MA, 02138, USA

SOURCE: Biochemistry (2001), 40(38), 11596-11603

CODEN: BICHAW; ISSN: 0006-2960

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The Escherichia coli Ada protein repairs methylphosphotriesters in DNA through direct, irreversible transfer to a cysteine residue on the protein, Cys 69. Methylation of Cys 69 increases the sequence-specific DNA-binding activity of Ada by 103-fold, enabling the methylated protein to activate transcription of a methylation-resistance regulon. The thiolate sulfur atom of Cys 69 is coordinated to a tightly bound zinc ion in the Ada N-terminal domain, and this metal-ligand interaction plays a direct role in promoting the DNA repair chem. Ada is thus the founding member of a mechanistic class of proteins that employ metalloactivated thiolates as nucleophiles, other examples of which include protein prenyltransferases and cobalamin-independent methionine synthase. Here we have probed the role of the three other Cys residues in Ada that together with Cys 69 coordinate the zinc through mutation to the alternative ligand residues Asp and His. All of the mutant proteins folded properly and bound zinc, but none of them exhibited measurable levels of DNA repair activity. Significantly, the Cys-to-His mutant proteins retained nearly wild-type sequence-specific DNA-binding activity in the unmethylated state. These findings demonstrate that the three spectator Cys ligands communicate chem. with Cys 69 through the bound metal ion.

REFERENCE COUNT: 44 THERE ARE 44 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 4 OF 7 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2001:13837 HCAPLUS  
 DOCUMENT NUMBER: 135:223334  
 TITLE: Methionine synthase, a gene required for methionine synthesis, is expressed in planta by *Cladosporium fulvum*  
 AUTHOR(S): Solomon, Peter S.; Nielsen, Peter Stein; Clark, Anthony J.; Oliver, Richard P.  
 CORPORATE SOURCE: Department of Physiology, Carlsberg Laboratory, Valby, DK-2500, Den.  
 SOURCE: Molecular Plant Pathology (2000), 1(5), 315-323  
 CODEN: MPPAFD; ISSN: 1464-6722  
 PUBLISHER: Blackwell Science Ltd.  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 AB The nutritional requirements of phytopathogenic fungi growing in planta has to date been largely ignored. We have begun to address this problem by investigating the methionine requirement for the biotrophic pathogen of tomato *Cladosporium fulvum* during infection. The Met6 gene from *Cladosporium fulvum* encoding a cobalamin-independent 5-methyltetrahydropteroyltriglutamate-homocysteine methyltransferase, was cloned by functional yeast complementation. The open reading frame was found to be 2304 bp, contg. no introns and encoding a protein of 87 kDa. In vitro Northern anal. demonstrated high levels of Met6 expression in the absence of externally supplied methionine. However in the presence of methionine or in the absence of carbon, expression of Met6 decreased significantly. Anal. of Met6 expression in planta revealed a strong increase during infection suggesting the requirement for methionine synthesis in planta by *Cladosporium fulvum*. This study demonstrates that *Cladosporium fulvum* is starving for methionine during infection and thus implies the essentiality of primary biosynthetic pathways to the infecting fungus.  
 REFERENCE COUNT: 49 THERE ARE 49 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 5 OF 7 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2000:450387 HCAPLUS  
 DOCUMENT NUMBER: 133:346816  
 TITLE: Isolation and identification of a 92-kDa stress induced protein from *Candida albicans*  
 AUTHOR(S): Burt, Edward T.; O'Connor, Christopher; Larsen, Bryan  
 CORPORATE SOURCE: Department of Biochemistry, Des Moines University-Osteopathic Medical Center, Des Moines, IA, 50312, USA  
 SOURCE: Mycopathologia (2000), Volume Date 1999, 147(1), 13-20  
 CODEN: MYCPAH; ISSN: 0301-486X  
 PUBLISHER: Kluwer Academic Publishers  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 AB It was previously shown that the presence of estrogen enhances survival of *Candida albicans* under heat and oxidative stresses. A 92-kDa protein is inducible by heat shock and estrogen in *C. albicans*. Previous studies have described this protein as hsp90 because of its mol. size and heat inducibility as seen on electrophoretic gels and Western blots. In this study, ion exchange, hydroxyapatite and size exclusion chromatog. were used to isolate a 92-kDa-protein band. The N-terminal sequence of isolated protein blotted onto a PVDF membrane was detd. to be V-Q-S--V-L-G-F-P-R. This sequence is homologous to the N-terminal sequence of the MET6 gene product, **cobalamin-independent methionine synthase**, from *Saccharomyces cerevisiae*. The results of this study suggest that a **cobalamin-independent methionine synthase** homolog is inducible by heat and estrogen in *C. albicans*. This study also suggests that *Candida* hsp90 is more likely to exist as an 82-kDa protein as predicted by a previously described cDNA and not as a 92-kDa protein as reported in the literature.  
 REFERENCE COUNT: 36 THERE ARE 36 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 6 OF 7 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1998:126266 HCAPLUS  
 DOCUMENT NUMBER: 128:189202  
 TITLE: Genomic DNA sequences of Streptococcus pneumoniae strain 0100993, their predicted protein products, and their diagnostic and therapeutic uses  
 INVENTOR(S): Black, Michael Terence; Hodgson, John Edward; Knowles, David Justin Charles; Lonetto, Michael Arthur; Nicholas, Richard Oakley; Stodola, Robert King  
 PATENT ASSIGNEE(S): Smithkline Beecham Corporation, USA; Black, Michael Terence; Hodgson, John Edward; Knowles, David Justin Charles; Lonetto, Michael Arthur; Nicholas, Richard Oakley; Stodola, Robert King  
 SOURCE: PCT Int. Appl., 640 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 13  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9806734	A1	19980219	WO 1997-US14436	19970815
W: JP, US				
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
EP 956289	A1	19991117	EP 1997-938354	19970815
R: BE, CH, DE, DK, FR, GB, IT, LI, NL				
JP 2000514308	T2	20001031	JP 1998-510078	19970815
US 6310193	B1	20011030	US 1997-940572	19970930
US 6165762	A	20001226	US 1997-958668	19971027
US 5932701	A	19990803	US 1997-978458	19971125
US 6284878	B1	20010904	US 1997-991023	19971215
US 6171835	B1	20010109	US 1999-385288	19990830
US 6348578	B1	20020219	US 1999-417511	19991014
US 2002091236	A1	20020711	US 2001-861345	20010518
PRIORITY APPLN. INFO.:			US 1996-24022P	P 19960816
			US 1997-37536P	P 19970210
			US 1997-889711	A2 19970708
			US 1997-911503	A2 19970815
			WO 1997-US14436	W 19970815
			US 1997-958668	A3 19971027
			US 1997-977555	A3 19971125
			US 1997-978454	A3 19971125
<p>AB Newly identified polynucleotides, polypeptides encoded by such polynucleotides, the uses of such polynucleotides and polypeptides, as well as the prodn. of such polynucleotides and polypeptides and recombinant host cells transformed with the polynucleotides, are provided. Thus, 322 DNA fragment sequences and 392 encoded protein sequences are provided that are expressed by Streptococcus pneumoniae strain 0100993 during infection. Because each DNA sequence contains an open reading frame (ORF) with appropriate initiation and termination codons, the encoded protein upon expression can be used as a target for the screening of antimicrobial drugs. This invention also relates to inhibiting the biosynthesis or action of such polynucleotides or polypeptides and to the use of such inhibitors in therapy.</p>				
REFERENCE COUNT:		4	THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT	

L5 ANSWER 7 OF 7 HCAPLUS COPYRIGHT 2003 ACS on STN  
 ACCESSION NUMBER: 1995:656389 HCAPLUS  
 DOCUMENT NUMBER: 123:247995  
 TITLE: Vitamin-B12-independent methionine synthase from a higher plant (Catharanthus roseus). Molecular characterization, regulation, heterologous expression, and enzyme properties  
 AUTHOR(S): Eichel, Johannes; Gonzalez, Julio C.; Hotze, Michael; Matthews, Rowena G.; Schroeder, Joachim  
 CORPORATE SOURCE: Inst. fuer Biologie II, Universitaet Freiburg, Germany  
 SOURCE: European Journal of Biochemistry (1995), 230(3), 1053-8



PUBLISHER:

Springer

DOCUMENT TYPE:

Journal

LANGUAGE:

English

AB Methionine synthases catalyze the formation of methionine by the transfer of a Me group from 5-methyltetrahydrofolate to homocysteine. This reaction is the last step in L-methionine biosynthesis, and it also serves to regenerate the Me group of S-adenosylmethionine, a cofactor required for biol. methylation reactions. We describe the cloning, expression and characterization of a methionine synthase from the higher plant *Catharanthus roseus*. **CDNAs** were identified that encoded a protein of 85 kDa sharing 50% identity with the **cobalamin-independent methionine synthase** from *Escherichia coli* (MetE) and 41% identity with a partial sequence of a yeast homolog of MetE. The *C. roseus* protein was expressed at high levels in *E. coli*. The enzyme accepts the triglutamate form of methyltetrahydrofolate as a Me donor but not the monoglutamate form, and it does not require S-adenosylmethionine or cobalamin for activity. The properties indicate that the enzyme is a **cobalamin-independent methionine synthase** (EC 2.1.1.14). In contrast to the *E. coli* MetE, the plant protein does not require phosphate or magnesium ions for activity. Immunoblots of plant extracts showed that the protein was localized in the cytosol, and was present in a variety of plant species. A nutritional downshift of the *C. roseus* cell culture revealed a strong, transient transcriptional activation, but no significant increment in the total level of the protein. The availability of the protein and the **cDNA** now provide tools to investigate the complexities of methionine biosynthesis in plants.

L1 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2003 ACS on STN  
RN 9068-29-5 REGISTRY  
CN Methyltransferase, tetrahydropteroyltriglutamate (9CI) (CA INDEX NAME)  
OTHER NAMES:  
CN 5-Methylenetetrahydropteroyltriglutamate-homocysteine methyltransferase  
CN 5-Methyltetrahydropteroyltriglutamate-homocysteine transmethylase  
CN 5-Tetrahydropteroyltriglutamate methyltransferase  
CN Cobalamin-independent methionine synthase  
CN E.C. 2.1.1.14  
CN Methyltetrahydropteroylpolyglutamate:homocysteine methyltransferase  
CN Methyltransferase, methyltetrahydropteroyltriglutamate-homocysteine  
CN Tetrahydropteroyltriglutamate methyltransferase  
DR 93792-08-6  
MF Unspecified  
CI MAN  
LC STN Files: AGRICOLA, BIOSIS, CA, CAPLUS, TOXCENTER, USPATEFUL.

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

33 REFERENCES IN FILE CA (1937 TO DATE)

33 REFERENCES IN FILE CAPLUS (1937 TO DATE)